



DOCKET NO.: M0925.70114US01

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Kneipp, et al. 10/723,174

Serial No.: Confirmation No.:

Filed:

5755

For:

November 26, 2003 SINGLE MOLECULE DETECTION WITH SURFACE-ENHANCED

RAMAN SCATTERING AND APPLICATIONS IN DNA OR RNA

**SEQUENCING** 

Examiner:

Not yet assigned

Art Unit:

1645

# **CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, day of Arra

Alexandria, VA 22313-1450, on the

## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- Information Disclosure Statement
- PTO Form 1449
- Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

Serial No.: 10/723,174 - 2 - Art Unit: 1645

Confirmation No.: 5755

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet i is enclosed.

Respectfully submitted,

By:

Timothy J. Oyer, Ph.D., Reg. No.: 36,628

Tani Chen, Sc.D., Reg. No.: 52,728 Wolf, Greenfield & Sacks, P.C.

600 Atlantic Avenue

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Docket No.: M0925.70114US01

Date: <u>D4/07</u>, 2005

xNDDx



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Angela M. Griffith

## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

# STATEMENT FILED PURSUANT TO THE DUTY OF DISCLOSURE UNDER 37 C.F.R. §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicants request consideration of this Information Disclosure Statement.

# PART I: Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case.

No fee or certification is required.

# PART II: Information Cited

The Applicants hereby make of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

## PART III. Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

- 1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
- 2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicants, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

By:

Timothy J. Oyer, Ph.D., Reg. No. 36,628 Tani Chen, Sc.D., Reg No. 52,728 Wolf, Greenfield & Sacks, P.C.

600 Atlantic Avenue

Boston, Massachusetts 02210-2206

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Docket No.: M0925.70114US01

**xNDDx** 

PAD FORM PTO-1449/A and B (Modified) ATTY. DOCKET NO. 10/723,174 APPLICATION NO. M0925.70114US01 **INFORMATION** CONFIRMATION 5755 NO. **DISCLOSURE STATEMENT BY** FILING DATE: November 26, 2003 **APPLICANT** Kneipp et al. APPLICANT: **GROUP ART UNIT:** 1645 EXAMINER: Not Yet Assigned Sheet 1 of 3

# **U.S. PATENT DOCUMENTS**

Examiner's Initials #	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of	Date of Publication or of issue	
		Number	Kind Code	Cited Document	of Cited Document MM/DD/YYYY	
		4,229,708		Mani et al.	10/21/1980	
		4,855,243		Simic-Glavaski	08/08/1989	
		4,962,037		Jett et al.	10/09/1990	
		5,026,159		Allen et al.	06/25/1991	
		5,088,820		Winefordner et al.	02/18/1992	
		5,091,652		Mathies et al.	02/25/1992	
		5,306,403		Vo-dinh	04/26/1994	
		5,351,117		Stewart et al.	09/27/1994	
		5,405,747		Jett et al.	04/11/1995	
<u> </u>		5,415,841		Dovichi et al.	05/16/1995	
		5,436,130		Mathies et al.	07/25/1995	
		5,445,935		Royer	08/29/1995	
		5,486,616		Waggoner et al.	01/23/1996	
		5,498,324		Yeung et al.	03/12/1996	
		5,512,458		Leonard	04/30/1996	
	-	5,527,712		Sheehy	06/18/1996	
		5,538,848		Livak et al.	07/23/1996	
		5,552,086		Simman et al.	09/03/1996	
		5,552,272		Bogart	09/03/1996	
		5,552,322		Nemoto et al.	09/06/1996	
		5,556,529		Nemoto	09/17/1996	
		5,556,790		Pettit	09/17/1996	
		5,558,998		Hammond et al.	09/24/1996	
·		5,565,171		Dovichi et al.	10/15/1996	
		5,567,628		Tarcha et al.	10/22/1996	

TORM PTO-1449/A and B (Modified)

**DISCLOSURE STATEMENT BY APPLICANT** 

APPLICATION NO.

10/723,174

ATTY. DOCKET NO. M0925.70114US01

CONFIRMATION

NO.

5755

FILING DATE:

November 26, 2003

APPLICANT:

Kneipp et al.

**GROUP ART UNIT:** Sheet 2 of 3

1645

EXAMINER: Not Yet Assigned

U.S. PATENT DOCUMENTS

0.5	FATENT DOCUMENTS	
5,569,587	Waggoner	10/27/1996
5,569,766	Waggoner et al.	10/29/1996
5,580,733	Levis et al.	12/03/1996
5,585,242	Bouma et al.	12/17/1996
5,593,867	Walker et al.	01/14/97
5,595,890	Newton et al.	01/21/1997
5,599,717	Vo-Dinh	02/04/1997
5,599,932	Bieniarz et al.	02/04/1997
5,607,643	Xiaoming et al.	03/04/1997
5,614,386	Metzker et al.	03/25/1997
5,622,824	Köster	04/22/1997
5,624,798	Yamamoto et al.	04/29/1997
5,627,027	Waggoner	05/06/1997
5,639,874	Middendorf et al.	06/17/1997
5,667,971	Hochberg	09/16/1997
5,667,975	Dykstra et al.	09/16/1997
5,674,743	Ulmer	10/07/1997
5,869,346	Xiaoming et al.	02/09/1999
6,002,471	Quake	12/14/1999
2003/0186240	Su, et al.	10/02/2003
2003/0187237	Chan, et al.	10/02/2003

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	*	BARNES et al., "Detecting Single Molecules in Liquids", Analytical Chemistry, pp. 418A-423A, July 1, 1995	
	*	FOJTIK. et al., "Laser Ablation of Films and Suspended Particles in a Solvent: Formation of Cluster and Colloid Solutions", Ber. Bunsenges. Phys. Chem., Vol. 97, No. 2, pp. 252-254, 1993	
	*	HILDERBRANDT et al., "Surface-Enhanced Resonance Raman Spectroscopy of Rhodamine 6G Adsorbed on Colloidal Silver," <i>Journ. Phys. Chem.</i> , 1984, Vol. 88, No. 4, pp. 5935-5944	

M PTO-1449/A and B (Modified) ATTY. DOCKET NO. APPLICATION NO. 10/723,174 M0925.70114US01 **INFORMATION** CONFIRMATION 5755 NO. **DISCLOSURE** STATEMENT BY FILING DATE: November 26, 2003 APPLICANT APPLICANT: Kneipp et al. **GROUP ART UNIT:** 1645 EXAMINER: Not Yet Assigned Sheet 3 of 3

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's	Cite	Include name of the author (in CAPITAL LETTERS) title of the article (when	Translation	
Initials #	No	appropriate), title of the item (book, magazine, journal, serial, symposium,	(Y/N)	
		catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city		
	<u> </u>	and/or country where published.		
	*	KNEIPP et al., "Population Pumping of Excited Vibrational States by Spontaneous		
		Surface-Enhanced Raman Scattering", Physical Review Letters, Vol. 76, No. 14, pp.		
	<u> </u>	2444-2447, 1 April 1996		
	*	KNEIPP et al., "Single Molecule Detection Using Surface-Enhanced Raman Scattering		
		(SERS)", Physical Review Letters, Vol. 78, No. 9, pp. 1667-1670, 3 March 1997		
	*	LEE, et al., "Adsorption and Surface-Enhanced Raman of Dyes on Silver and Gold		
		Sols1", J. Phys. Chem. Vol. 86, No. 17, pp. 3391-3395 1982		
	*	KNEIPP et al. "Single molecule detection using surface-enhanced Raman scattering		
		(SERS)," 1997, Physical review letters, Vol. 78, No. 9, pp. 1667-1670, 3 March 1997	i	
	*	KNEIPP et al., "Near-Infrared Surface-Enhanced Raman Scattering (NIR SERS) on		
		Colloidal Silver and Gold," Applied Spectroscopy, Vol. 48, No. 8, pp. 951-955, 1994		
	*	KNEIPP et al., "Single-Molecule Detection of a Cyanine Dye in Silver Colloidal		
	İ	Solution Using Near-Infared Surface-Enhanced Raman Scattering," Applied		
		Spectroscopy, Vol. 52, No. 2, pp. 175-178, 1998.		
	*	KNEIPP et al., "Detection and Identification of a Single DNA Base Molecule Using		
		Surface-Enhanced Raman Scattering (SERS)," Physical Review E, Vol. 57, No. 6, pp.		
		R6281-R6284, June 1998.		
	*	MOSKOVITS, "Surface-enhanced spectroscopy", Reviews of Modern Physics, Vol.		
		57, No. 3, Part I, pp. 783-826, July 1985		
	*	NEDDERSEN et al., "Laser Ablation of Metals: A New Method for Preparing SERS		
		Active Colloids", Applied Spectroscopy, Vol. 47, No. 12, pp. 1959-1964, 1993		
	*	NIE, et al. "Probing Single Molecules and Single Nanoparticles by Surface-Enhanced		
		Raman Scattering", Science, Vol. 275, pp. 1102-1106, 21 February 1997		
	*	POOL, "Lone molecule bares all in silver mirror," New Scientist, 15 March 1997, pg.		
		16		
	*	SCHEWE et al., Physics News Update: The American Institute of Physics Bulletin of		
		Physics News, No. 308, February 20, 1997		

Examiner	DATE CONSIDERED

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

<sup>\*</sup>a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 10/054,729, filed January 22, 2002 or Serial No. 09/063,741 filed April 21, 1998, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).